Amendments to the Claims

Claim 1 (previously presented): In an image processing system, a method for relating a first image to a second image comprising:

a) aligning the first image with a second image; and

b) plotting a gray level of a pixel from the first image against a gray level of a corresponding pixel from the second image for all aligned pixel locations.

Claim 2 (previously presented): The method of claim 1 further comprising plotting a threshold window on a plot created in step (b).

Claim 3 (previously presented): The method of claim 1 wherein a plot created in step (b) is stored in a memory array variable.

Claim 4 (previously presented): The method of claim 1 wherein a plot created in step (b) is displayed on a video monitor.

Claim 5 (original): A computer-readable medium storing a program for carrying out the method of claim 1.

Claim 6 (original): A computer-readable medium comprising:

a plurality of memory locations storing data representing a first image and an associated second image, said first and second images each having a plurality of pixels with each pixel being defined by a location coordinate and a gray level; and,

an array comprising a plurality of memory locations storing data representing a plot of the gray levels of pixels from the first image against the gray levels of corresponding pixels from the second image.

Claim 7 (original): A defect inspection system comprising:

(a) an image acquisition unit being operable to acquire a first image and an associated second image, the first and second images each having a plurality of pixels with each pixel being defined by a location coordinate and a gray level;

(b) a plurality of memory locations storing data representing the first image and the second image; and,

(c) a processor being operable to plot the gray levels of pixels from the first image against the gray levels of corresponding pixels from the second image.